## **ABSTRACT**

An automatic method for the registration of prone and supine computed tomographic colonography data is provided. The method improves the radiologist's overall interpretation efficiency as well as provides a basis for combining supine/prone computer-aided detection results automatically. The method includes determining (centralized) paths or axes of the colon from which relatively stationary points of the colon are matched for both supine and prone positions. Stretching and/or shrinking of either the supine or prone path perform registration of these points. The matching and registration occurs in an iterative and recursive manner and is considered finished based on one or more decision criteria.

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